An Overview of the Cisco Unified Wireless IP Phone 7920

The Cisco Unified Wireless IP Phone 7920 provides wireless voice communication over an Internet Protocol (IP) network. Like traditional analog telephones, you can place and receive phone calls and access features such as hold, transfer, and speed dial. In addition, because the phone connects to your wireless LAN, you can place and receive phone calls from anywhere in your wireless environment.

This chapter includes the following topics:

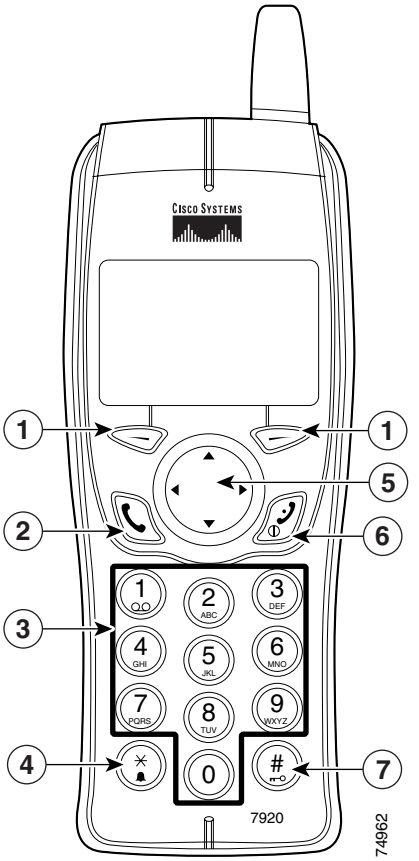
- Understanding the Cisco Unified Wireless IP Phone 7920, page 1-1
- Features Supported on the Cisco Unified Wireless IP Phone 7920, page 1-3

Understanding the Cisco Unified Wireless IP Phone 7920

The Cisco Unified Wireless IP Phone 7920 is an 802.11b wireless device that provides comprehensive voice communications in conjunction with Cisco Unified CallManager and Cisco Aironet 802.11b Access Points (APs) in a private business communications network.This phone model supports G.711a, G.711u, and G.729a audio compression coder-decoders (codecs). You must configure and manage a Cisco Unified Wireless IP Phone like other IP phones and wireless devices on your network.The wireless IP phone supports multiple lines and most of the IP phone features of other Cisco Unified IP Phone models.

Figure 1-1 shows the Cisco Unified Wireless IP Phone 7920. The table that follows describes the functions of the keys on the phone.

Figure 1-1 Cisco Unified Wireless IP Phone 7920 Keys



1		Left softkey—Activates the item in the label above the softkey.
		Right softkey—Activates the item in the label above the softkey.
2		Answer/Send key (green)—Answers a call or dials a number.

3		Number keys (0-9)—Use these keys to enter numbers or characters.
		Number keys (2-9)—Press and hold these keys to activate speed-dial hot keys.
4		Asterisk (*) key—Toggles between Ring and Vibrate mode. Toggles between upper and lower case.
5		Arrow key—Moves from one function to another. This guide uses these directional arrows ▲, ▼, ◀, or ▶.
6		Power/End key (red)—Turns the phone on or off, silences a ringing call, or ends a connected call.
7		Pound (#) key—Toggles between locking and unlocking the key pad. Allows you to access special characters when you are entering text.

For more information about phone features and how they operate, refer to the *Cisco Unified Wireless IP Phone 7920 Guide*.

Related Topics

- Features Supported on the Cisco Unified Wireless IP Phone 7920, page 1-3
- Overview of Configuring and Installing the Cisco Unified Wireless IP Phone 7920, page 1-8

Features Supported on the Cisco Unified Wireless IP Phone 7920

The Cisco Unified Wireless IP Phone 7920 functions much like traditional IP phones allowing you to place and receive telephone calls while connected to the wireless LAN. In addition to traditional phone features, the Cisco Unified Wireless IP Phone includes features that enable you to administer and monitor the phone as a network device.

Caution This product is not intended for use with patient monitoring devices or other patient care devices. Do not use this product as the primary communications tool in health care environments, as it may use an unregulated frequency band that is susceptible to interference from other devices or equipment.

This section provides information about these topics:

- Feature Overview, page 1-4
- Configuring Telephony Features, page 1-5
- Configuring Security for the Cisco Unified Wireless IP Phone, page 1-6
- Configuring Network Access for the Cisco Unified Wireless IP Phone, page 1-6
- Providing Users with Feature Information, page 1-7

Feature Overview

The Cisco Unified Wireless IP Phone 7920 provides traditional telephony functionality, such as call forwarding and transferring, call pickup, redialing, speed dialing, conference calling, and voice messaging system access. In addition, the Cisco Unified Wireless IP Phone 7920 provides the following features:

- Wireless access to your corporate directory number and phone services.
- Multiline appearances
- Up to eight local speed-dial hot keys
- Caller ID for incoming calls
- Call-handling features such as forward, transfer, hold, call park, conference, call pickup, and group pickup
- Configurable softkey for access to your personal phone book or IP phone service
- Choice of four network profiles
- Choice of personal profiles for different environments, such as outdoors, or meetings

- Access to web-based services such as weather, stock reports, and phone directories

Related Topics

- Configuring Network Profile Settings, page 5-3
- Configuring Features, Templates, Services, and Users, page 7-1

Configuring Telephony Features

You can use the Cisco Unified CallManager Administration application to set up phone registration criteria and calling search spaces, and to modify softkey templates, among other tasks. For more information, see Chapter 7, "Configuring Features, Templates, Services, and Users."

In some places, this manual provides partial instructions for procedures that involve Cisco Unified CallManager Administration. These instructions are intended to point you to the appropriate page in the Cisco Unified CallManager application and to provide some initial guidance.

For more information about the Cisco Unified CallManager Administration application, refer to Cisco Unified CallManager documentation, including *Cisco Unified CallManager Administration Guide*. You can also use the context-sensitive help that is available within the application. Access context-sensitive help by choosing **Help > For this screen** from the main menu bar.

You can access the complete Cisco Unified CallManager documentation for your version at this location:

http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm

Related Topic

- Methods for Adding Phones to Cisco Unified CallManager, page 3-3
- Configuring Features, Templates, Services, and Users, page 7-1

Configuring Security for the Cisco Unified Wireless IP Phone

Implementing security in the voice over WLAN protects against data tampering threats and identity theft of phones. To alleviate these threats, the Cisco wireless LAN provides many options for user authentication with servers and for encrypting communications streams between phones and network devices.

For information about supported security options for the Cisco Unified Wireless IP Phone 7920, see the "Security Mechanisms in the Wireless Network" section on page 2-14.

Related Topic

- Securing Voice Communications, page 2-4
- Choosing Authentication and Encryption Methods, page 2-17

Configuring Network Access for the Cisco Unified Wireless IP Phone

Like other network devices, you must configure IP phones to access Cisco Unified CallManager and the rest of the IP network using the wireless LAN. There are two methods for configuring network settings such as DHCP, TFTP, and for wireless settings for the phone.

- Cisco 7920 Configuration Utility
- Network Config menu on the Cisco Unified Wireless IP Phone 7920

You install the Cisco 7920 Configuration Utility on a computer and connect to the Cisco Unified Wireless IP Phone 7920 with a USB cable to configure phone and network settings. For more information, see Chapter 4, "Using the Cisco 7920 Configuration Utility."

You can also configure network settings on the phone itself. For more information about configuring features from the phone, see Chapter 5, "Configuring Network Profile Settings."

Because the Cisco Unified Wireless IP Phone is a network device, you can obtain detailed status information about it. This information can assist you in troubleshooting problems that users might encounter when using their IP phones. See Chapter 8, "Viewing Status, Statistics, and Firmware Information on the Cisco Unified Wireless IP Phone 7920," for tips on using this information.

Related Topics

- Using the Cisco 7920 Configuration Utility, page 4-1
- Configuring Network Profile Settings, page 5-3
- Monitoring the Cisco Unified Wireless IP Phone Remotely, page 9-1

Providing Users with Feature Information

If you are a system administrator, you are the primary source of information for Cisco Unified Wireless IP Phone users in your network or company. To ensure that you distribute the most current feature and procedural information, familiarize yourself with Cisco Unified Wireless IP Phone 7920 documentation. Make sure to visit the Cisco Unified IP Phone web site:

http://www.cisco.com/univercd/cc/td/doc/product/voice/c_ipphon/index.htm

From this site, you can view and order additional phone documentation. For complete ordering information, see the "Obtaining Documentation" section on page xviii.

In addition to providing documentation, it is important to inform users about available Cisco Unified IP Phone features—including features specific to your company or network—and about how to access and customize those features, if appropriate.

For a summary of the key information that you can provide to phone users, see Appendix A, "Providing Information to Users By Using a Website."

Note The radio frequency (RF) for the Cisco Unified Wireless IP Phone 7920 is configured for a specific regulatory domain. If users attempt to use this phone outside of the regulatory domain, the phone will not function properly and they might violate local regulation.

Related Topic

Providing Information to Users By Using a Website, page A-1

Overview of Configuring and Installing the Cisco Unified Wireless IP Phone 7920

When deploying a new IP telephony system, system administrators and network administrators must complete several initial configuration tasks to prepare the network for IP telephony service. For information and a checklist for setting up and configuring a complete Cisco IP telephony network, refer to the "System Configuration Overview" chapter in the *Cisco Unified CallManager System Guide*.

To add Cisco Unified Wireless IP Phones to the IP network, system administers also need to perform a site survey to determine where to place and install access points (APs) for wireless voice coverage. For detailed information about a voice over WLAN deployment, refer to the *Cisco Unified Wireless IP Phone 7920 Design and Deployment Guide*.

After you have set up the IP telephony system and configured system-wide features in Cisco Unified CallManager, you can add IP phones to the system.

The following topics provide an overview of procedures for adding Cisco Unified IP Phones to your network:

- Configuring Cisco Unified IP Phones in Cisco Unified CallManager, page 1-8
- Installing Cisco Unified IP Phones, page 1-13

Configuring Cisco Unified IP Phones in Cisco Unified CallManager

To add phones to the Cisco Unified CallManager database, you can use:

- Auto-registration
- Cisco Unified CallManager Administration
- Bulk Administration Tool (BAT)
- BAT and the Tool for Auto-Registered Phones Support (TAPS)

For more information about these choices, see the "Methods for Adding Phones to Cisco Unified CallManager" section on page 3-3.

For general information about configuring phones in Cisco Unified CallManager, refer to the "Cisco Unified IP Phone" chapter in the *Cisco Unified CallManager System Guide*.

Related Topic

Checklist for Configuring the Cisco Unified Wireless IP Phone 7920 in Cisco Unified CallManager, page 1-9

Checklist for Configuring the Cisco Unified Wireless IP Phone 7920 in Cisco Unified CallManager

Table 1-1 provides an overview and checklist of configuration tasks for the Cisco Unified Wireless IP Phone 7920 in Cisco Unified CallManager Administration. The list presents a suggested order to guide you through the phone configuration process. Some tasks are optional, depending on your system and user needs. For detailed procedures and information, refer to the sources in the list.

Table 1-1 Checklist for Configuring the Cisco Unified Wireless IP Phone 7920 in Cisco Unified CallManager

Task	Purpose	For More Information
1. Gather the following information about the phone: • MAC address • Physical location of the phone • Name or user ID of phone user • Device pool • Calling search space and location information (if used) • Number of lines, associated directory numbers (DNs), and partitions to assign to the phone • Cisco Unified CallManager user to associate with the phone • Phone usage information that affects phone softkey template, phone features, IP Phone services, or phone applications	Provides list of configuration requirements for setting up phones. Identifies preliminary configuration that you need to perform before configuring individual phones, such as softkey templates.	Refer to the *Cisco Unified CallManager System Guide,* Cisco Unified IP Phone chapter. See the "Telephony Features Available for the Phone" section on page 7-3.
2. Add and configure the phone by completing these required fields in the Phone Configuration window: • Phone type • Description (user name or ID) • MAC address • Device pool • Partition • Calling Search Space • Product Specific Configuration • Softkey template (if customized)	Adds the device with its default settings to the Cisco Unified CallManager database.	Refer to the *Cisco Unified CallManager Administration Guide*, Cisco Unified IP Phone Configuration chapter. For information about Product Specific Configuration fields, refer to "I" Button Help in the Phone Configuration window.

Table 1-1 Checklist for Configuring the Cisco Unified Wireless IP Phone 7920 in Cisco Unified CallManager (continued)

Task	Purpose	For More Information
3. Add and configure directory numbers (lines) on the phone by completing these required fields in the Directory Number Configuration window. • Directory number(s) • Partition • Multiple Calls and Call Waiting • Call Forwarding and Pickup (if used) • Voice Messaging (if used)	Adds primary and secondary directory numbers and features associated with directory numbers to the phone.	Refer to the *Cisco Unified CallManager Administration Guide*, Cisco Unified IP Phone Configuration chapter: "Adding a Directory Number" section "Creating a Cisco Unity Voice Mailbox" section. See the "Telephony Features Available for the Phone" section on page 7-3.
4. Customize softkey templates (optional).	Adds, deletes, or changes order of softkey features that display on the user's phone to meet feature usage needs.	Refer to the *Cisco Unified CallManager Administration Guide*, Softkey Template Configuration chapter. See the "Configuring Softkey Templates" section on page 7-11.
5. Configure speed-dial numbers (optional).	Adds speed-dial numbers, **Note** Users can change speed-dial settings on their phones by using Cisco Unified IP Phone User Options.	Refer to the *Cisco Unified CallManager Administration Guide*, Cisco Unified IP Phone Configuration chapter, "Configuring Speed-Dial Buttons" section.

Table 1-1 Checklist for Configuring the Cisco Unified Wireless IP Phone 7920 in Cisco Unified CallManager (continued)

Task	Purpose	For More Information
6. Configure Cisco Unified IP Phone services and assign services (optional).	Provides IP Phone services. **Note** Users can add or change services on their phones by using the Cisco Unified IP Phone User Options.	Refer to the *Cisco Unified CallManager Administration Guide*, Cisco Unified IP Phone Services Configuration chapter. See the "Setting Up IP Phone Services" section on page 7-12.
7. Add user information by configuring required fields: (optional). • Name (last) • User ID • Password (for User Options web pages) • PIN (for use with Extension Mobility and Personal Directory	Adds user information to the global directory for Cisco Unified CallManager. **Note** To search for a user in the Corporate Directory, add user information to Cisco Unified CallManager.	Refer to the *Cisco Unified CallManager Administration Guide*, Adding a New User chapter. See the "Adding Users to Cisco Unified CallManager" section on page 7-15.
8. Associate a user with a phone (optional).	Provides users with control over their phone such as forwarding calls or adding speed-dial numbers or services. **Note** Some phones, such as those in conference rooms, do not have an associated user.	Refer to the *Cisco Unified CallManager Administration Guide*, Adding a New User chapter, "Associating Devices to a User" section.

Related Topics

- Installing Cisco Unified IP Phones, page 1-13
- Checklist for Installing the Cisco Unified Wireless IP Phone 7920, page 1-13
- Configuring Features, Templates, Services, and Users, page 7-1

Installing Cisco Unified IP Phones

After you have added the phones to the Cisco Unified CallManager database, you can complete the phone installation. You (or the phone users) can install the phone at the users's location. The Cisco Unified IP Phone Installation Guide that ships in the box with each phone provides directions for assembling the phone and accessories and charging the battery.

Prior to using the phone to connect to the wireless LAN, you need to configure a network profile for the phone. You can use the Cisco 7920 Configuration Utility to set up the network profile and other phone settings, or you can configure the network profile using phone menus.

If you use auto-registration with Cisco Unified CallManager, you need to update the specific configuration information for the phone such as associating the phone with a user, changing the softkey template, or directory number.

Note Before you install a phone, even if it is new, upgrade the phone to the current firmware image. For information about upgrading, refer to the Readme file for your phone which is located at: http://www.cisco.com/cgi-bin/table/tablebuild.pl/ip-7900ser-crypto

Related Topic

Checklist for Installing the Cisco Unified Wireless IP Phone 7920, page 1-13

Checklist for Installing the Cisco Unified Wireless IP Phone 7920

Table 1-2 provides an overview and checklist of installation tasks for the Cisco Unified Wireless IP Phone 7920. The list presents a suggested order to guide you through the phone installation. Some tasks are optional, depending on your system and user needs. For detailed procedures and information, refer to the sources in the list.

Table 1-2 Checklist for Installing the Cisco Unified Wireless IP Phone 7920

Task	Purpose	For More Information
1. Assemble the phone components and charge the battery.	Charges the phone for use.	See the "Providing Power to the Cisco Unified IP Phone" section on page 3-10.
2. Configure the network profile with the Cisco 7920 Configuration Utility.	Sets up IP network and WLAN configuration for the phone.	See the "Configuring a Network Profile" section on page 4-18.
3. Configure the phone settings with the Cisco 7920 Configuration Utility.	Adds rings, language, and other specific phone settings.	See the "Configuring Phone Settings" section on page 4-26.
4. If required, you can configure these network settings on the phone by choosing **Menu > Profiles> Network Profile >** <Profile Name> To enable DHCP: • Set DHCP Enabled/Disable to **Enable**. To disable DHCP: • Set DHCP Enabled/Disable to **Disable**. • Enter static **IP address** for phone. • Enter Subnet Mask. • Enter Primary Gateway IP address. • Enter Primary TFTP Server **IP address**. • Enter Primary and Secondary DNS servers	Using DHCP—The IP address is automatically assigned and the Cisco Unified IP Phone is directed to a TFTP Server. **Note** Consult with the network administrator if you need to assign an alternative TFTP server instead of using the TFTP server assigned by DHCP. Without DHCP—You must configure the IP address, subnet mask, primary gateway, TFTP server, and DNS server locally on the phone.	See the "Startup Settings for a Network Without DHCP" section on page 3-19. See the "Configuring Network Profile Settings" section on page 5-3.
5. Set up Wireless network settings on the phone (if required).	Provides access to the wireless LAN.	See the "Configuring Wireless Settings for the Profile" section on page 5-10.

Table 1-2 Checklist for Installing the Cisco Unified Wireless IP Phone 7920

Task	Purpose	For More Information
6. Power on the phone and monitor the phone startup process.	Verifies that phone is configured properly.	See the "Understanding the Phone Startup Process" section on page 2-25. See the Resolving Startup and Connectivity Problems, page 10-2
7. Make calls with the Cisco Unified Wireless IP Phone.	Verifies that the phone and features work correctly.	Refer to the *Cisco Unified Wireless IP Phone 7920 Guide*. See the Resolving Voice Quality and Roaming Problems, page 10-11
8. Provide information to end users about how to use their phones and how to configure their phone options.	Ensures that users have adequate information to successfully use their Cisco Unified IP Phones.	See Appendix A, "Providing Information to Users By Using a Website."

Related Topics

- Understanding the Cisco Unified Wireless IP Phone 7920, page 1-1
- Configuring Cisco Unified IP Phones in Cisco Unified CallManager, page 1-8
- Troubleshooting the Cisco Unified Wireless IP Phone 7920, page 10-1